Universal Control Panel
User's Manual

Wachs Subsea LLC
11050 West Little York
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Houston, Tx 77041
www.wachssubsea.com

Wachs Subsea Part No. H10-023-000 (Stand H10-078)

Revision History:
Original August 2012

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Chapter 1

About the Universal Control Panel

In This Chapter

PURPOSE OF THIS MANUAL

HOW TO USE THE MANUAL

SYMBOLS AND WARNINGS

MANUAL UPDATES AND REVISION TRACKING

EQUIPMENT DESCRIPTION

PURPOSE OF THIS MANUAL

This manual explains how to operate and maintain the Universal Control Panel. It includes instructions for set-up, operation, and maintenance. It also contains parts lists, diagrams, and service information to help you order replacement parts and perform user-serviceable repairs.

Before operating the Universal Control Panel, you should read through this manual and become familiar with all instructions.

HOW TO USE THE MANUAL

This manual is organized to help you quickly find the information you need. Each chapter describes a specific topic on using or maintaining your equipment.

Each page is designed with two columns. This large column on the inside of the page contains instructions and illustrations. Use these instructions to operate and maintain the equipment.

The narrower column on the outside contains additional information such as warnings, special notes, and definitions. Refer to it for safety notes and other information.

Throughout this manual, refer to this column for warnings, cautions, and notices with supplementary information.

SYMBOLS AND WARNINGS

The following symbols are used throughout this manual to indicate special notes and warnings. They appear in the outside column of the page, next to the section they refer to. Make sure you understand what each symbol means, and follow all instructions for cautions and warnings.

WARNING

A WARNING alert with the safety alert symbol indicates a potentially hazardous situation that **could** result in **serious injury or death**.

CAUTION

A CAUTION alert with the safety alert symbol indicates a potentially hazardous situation that **could** result in **minor or moderate injury**.

CAUTION

A CAUTION alert with the damage alert symbol indicates a situation that **will** result in **damage to the equipment**.

IMPORTANT

An IMPORTANT alert with the damage alert symbol indicates a situation that **may** result in **damage to the equipment**.

This is the **safety alert symbol**. It is used to alert you to **potential personal injury hazards**. Obey all safety messages that follow this symbol to avoid possible injury or death.

This is the **equipment damage alert symbol**. It is used to alert you to **potential equipment damage situations**. Obey all messages that follow this symbol to avoid damaging the equipment or workpiece on which it is operating.

NOTE

This symbol indicates a user note. **Notes** provide additional information to supplement the instructions, or tips for easier operation.

NOTE

A NOTE provides supplementary information or operating tips.

MANUAL UPDATES AND REVISION TRACKING

Occasionally, we will update manuals with improved operation or maintenance procedures, or with corrections if necessary. When a manual is revised, we will update the revision history on the title page.

You may have factory service or upgrades performed on the equipment. If this service changes any technical data or operation and maintenance procedures, we will include a revised manual when we return the equipment to you.

EQUIPMENT DESCRIPTION

Wachs Subsea Hydraylic Control Panel is a heavy duty four circuit hydraulic panel complete with pressure/ flow gauges and controls for four hydraulic circuits, three variable flow and pressure and one clamp circuit.

Lifting Eyes

Control Panel Interface

Forklift Channels

Ball Valve Selector (Variable Volume or Fixed Displacement Pump)

Hydraylic Hose Connections

Chapter 2
Safety

Wachs Subsea LLC takes great pride in designing and manufacturing safe, high-quality products. We make user safety a top priority in the design of all our products.

Read this chapter carefully before operating the Universal Control Panel. It contains important safety instructions and recommendations.

In This Chapter

OPERATOR SAFETY

SAFETY LABELS

MACHINE SAFETY

OPERATOR SAFETY

Follow these guidelines for safe operation of the equipment.

- **READ THE OPERATING MANUAL.** Make sure you understand all setup and operating instructions before you begin.
- **INSPECT MACHINE AND ACCESSORIES.** Before starting the machine, look for loose bolts or nuts, leaking lubricant, rusted components, and any other physical conditions that may affect operation. Properly maintaining the machine can greatly decrease the chances for injury.
- **ALWAYS READ PLACARDS AND LABELS.** Make sure all placards, labels, and stickers are clearly legible and in good condition. You can purchase replacement labels from Wachs Subsea LLC.
- **KEEP CLEAR OF MOVING PARTS.** Keep hands, arms, and fingers clear of all rotating or moving parts.

Look for this symbol throughout the manual. It indicates a personal injury hazard.

Always turn machine off before doing any adjustments or service.

- **SECURE LOOSE CLOTHING AND JEWELRY.** Secure or remove loose-fitting clothing and jewelry, and securely bind long hair, to prevent them from getting caught in moving parts of the machine.
- **KEEP WORK AREA CLEAR.** Keep all clutter and nonessential materials out of the work area. Only people directly involved with the work being performed should have access to the area.

Safety Symbols

This icon is displayed with any safety alert that indicates a personal injury hazard.

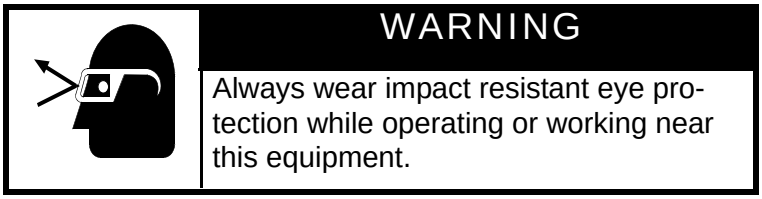
⚠ WARNING

This safety alert indicates a potentially hazardous situation that, if not avoided, **could** result in **death or serious injury**.

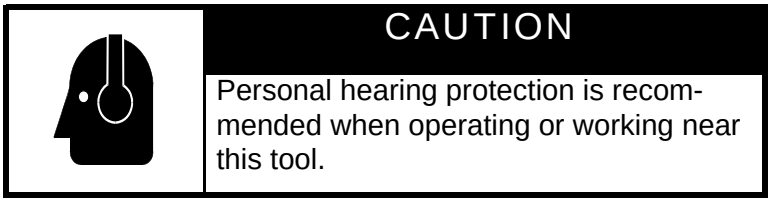
⚠ CAUTION

This safety alert, with the personal injury hazard symbol, indicates a potentially hazardous situation that, if not avoided, **could** result in **minor or moderate injury**.

Protective Equipment Requirements



For additional information on eye and face protection, refer to Federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.133., Eye and Face Protection and American National Standards Institute, ANSI Z87.1, Occupational and Educational Eye and Face Protection. Z87.1 is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.



Hearing protectors are required in high noise areas, 85 dBA or greater. The operation of other tools and equipment in the area, reflective surfaces, process noises, and resonant structures can increase the noise level in the area. For additional information on hearing protection, refer to Federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.95, Occupational Noise Exposure and ANSI S12.6 Hearing Protectors.

SAFETY LABELS

SAFETY LABEL INFORMATION

MACHINE SAFETY

To avoid damaging the equipment, follow these usage guidelines.

- Lubricate the machinery according to the recommendations in Chapter 4.
- Before operating the control panel, make sure the tooling is inserted and fastened securely.
-
- Make sure that all pneumatic or hydraulic connections are secure.

Chapter 3

Operating Instructions

SETTING UP THE CONTROL PANEL

1. Position the control panel on a flat surface. Use a forklift in the frame openings or use a crane attached to the 2 lifting eyes with a 2-point vertical sling.

Figure 3-1. Use the lift eyes or fork lift openings shown in the illustration.

In This Chapter

SETTING UP THE CONTROL PANEL

START-UP AND OPERATION OF CONTROL PANEL

2. Connect hydraulic hoses to the back of the control panel according to the image shown in Figure 3-2

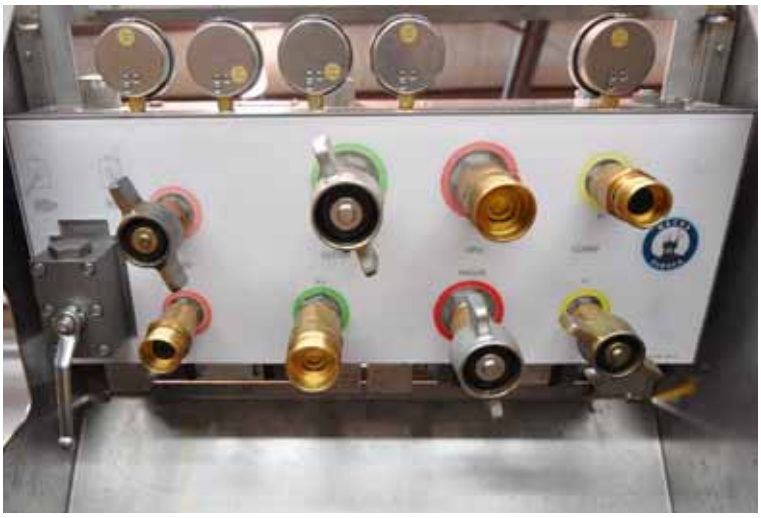
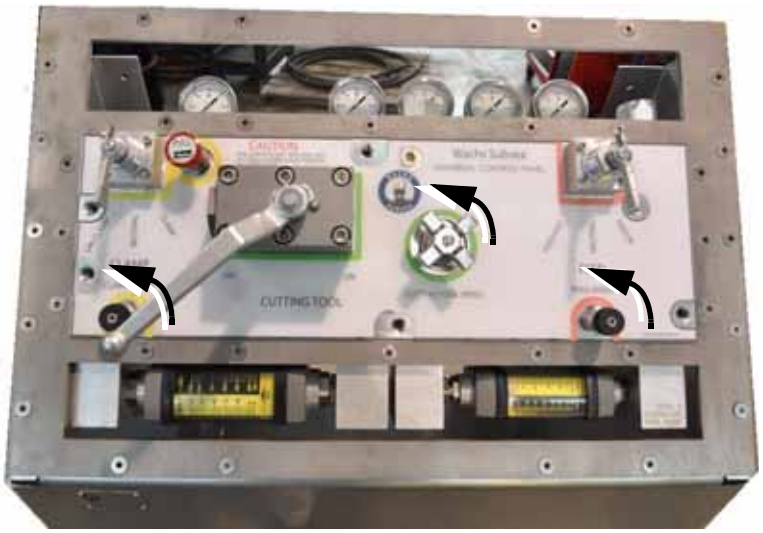


Figure 3-2. Connect hydraulic hoses as required to the Feed, Cutter, and Clamp connectors. Fittings with wings are return and fittings without are pressure.

START-UP AND OPERATION OF THE CONTROL PANEL

1. Set all flow controls to the minimum flow setting and valves to the neutral or off position.



2. Operate the flow control levers to adjust the flow as required for the tools you are operating. Monitor the flow gauges for each circuit to manage flow.

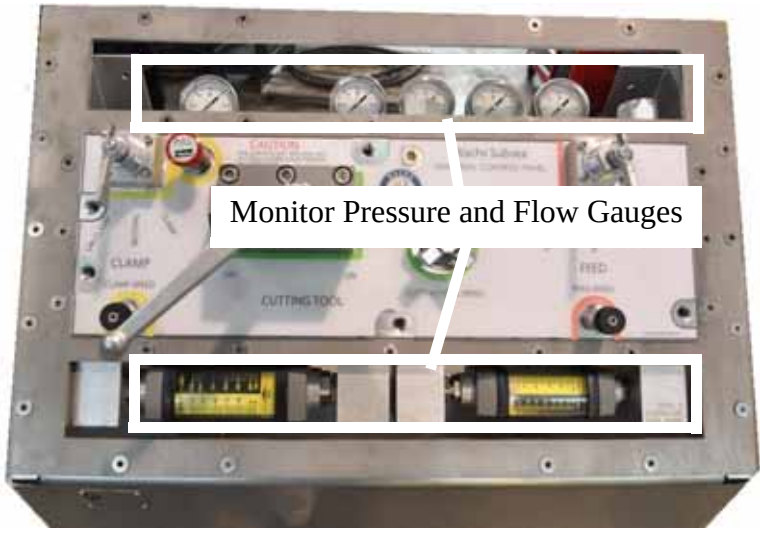


Figure 3-3. The image illustrates the flow gauges and pressure gauges that need to be monitored during operation of the control panel.

After Completion of Operation

1. Return knobs and levers to the minimum setting and return valves to the neutral postion.
2. Bleed pressure valves
3. Disconnect hydraulic hoses accordingly.

Chapter 4
Maintenance

In This Chapter

This Chapter is not in use for The Universal Control Panel. There is virtually no maintenance required for the control panel other than to wash and clean the control panel. Hydraulic Connectors, fittings and valves should be replaced as needed.

Chapter 5

Parts List and Ordering Information

In This Chapter

ORDERING INFORMATION

To place an order, request service, or get more detailed information on any Wachs Subsea LLC products, call us at one of the following numbers:

U.S. 713-983-0784

You can also visit our Web site at:

www.wachssubsea.com

Ordering Replacement Parts

When ordering parts, refer to the parts lists in this chapter. Please provide the part description and part number for all parts you are ordering.

Repair Information

Please call us for an authorization number before returning any equipment for repair or factory service. We will advise you of shipping and handling. When you send the equipment, please include the following information:

- Your name/company name
- Your address
- Your phone number

- A description of the problem or the work to be done.

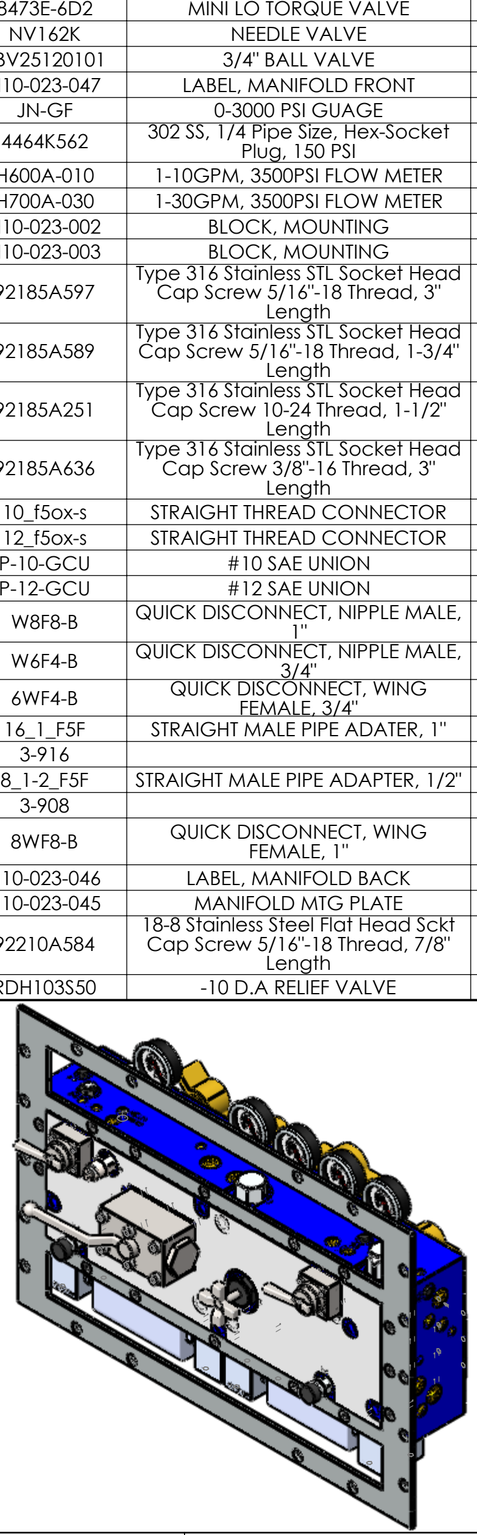
Before we perform any repair, we will estimate the work and inform you of the cost and the time to complete it.

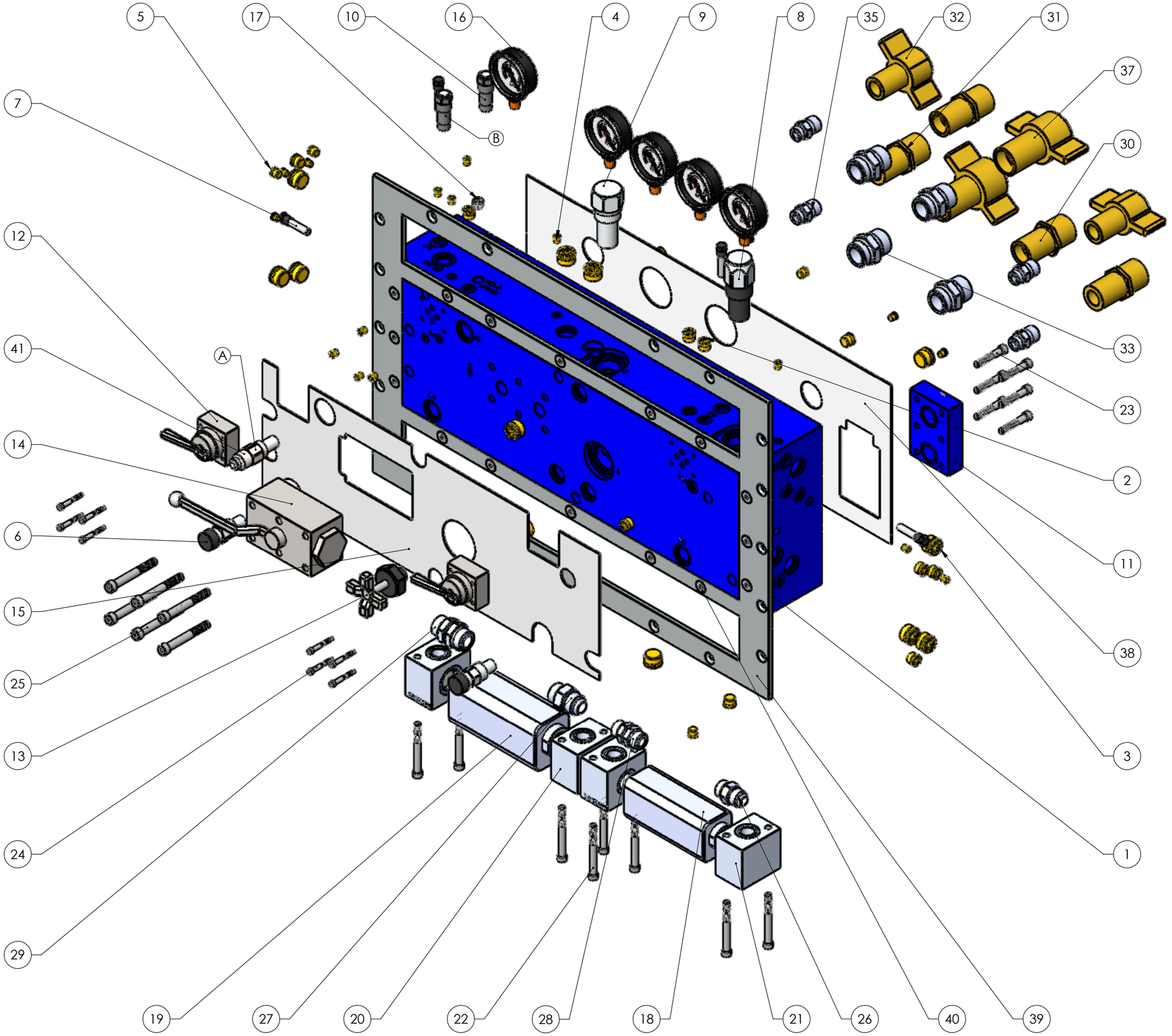
Return Goods Address

Return equipment for repair to the following address.

Wachs Subsea LLC
11050 West Little York
Houston, Tx 77041 USA

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	H10-023-001	Universal Manifold	1
2	SAE6P	SAE 06 PLUG	14
3	SAE10P	SAE 10 PLUG	14
4	SAE2P	SAE 02 PLUG	18
5	SAE4P	SAE 04 PLUG	5
6	FA101K	ADJUSTABLE FLOW CONTROL	2
7	CS041B	SHUTTLE CARTRIDGE	4
8	16SLC2-A-150	LOGIC VALVE PILOT TO CLOSE	1
9	R06H3	DIVERTER VALVE	1
10	CP084P	SINGLE PO CHECK VALVE	2
11	H10-023-005	BLOCK, SEAL	1
12	8473E-6D2	MINI LO TORQUE VALVE	2
13	NV162K	NEEDLE VALVE	1
14	BBV25120101	3/4" BALL VALVE	1
15	H10-023-047	LABEL, MANIFOLD FRONT	1
16	JN-GF	0-3000 PSI GUAGE	5
17	4464K562	302 SS, 1/4 Pipe Size, Hex-Socket Plug, 150 PSI	1
18	H600A-010	1-10GPM, 3500PSI FLOW METER	1
19	H700A-030	1-30GPM, 3500PSI FLOW METER	1
20	H10-023-002	BLOCK, MOUNTING	2
21	H10-023-003	BLOCK, MOUNTING	2
22	92185A597	Type 316 Stainless STL Socket Head Cap Screw 5/16"-18 Thread, 3" Length	8
23	92185A589	Type 316 Stainless STL Socket Head Cap Screw 5/16"-18 Thread, 1-3/4" Length	6
24	92185A251	Type 316 Stainless STL Socket Head Cap Screw 10-24 Thread, 1-1/2" Length	8
25	92185A636	Type 316 Stainless STL Socket Head Cap Screw 3/8"-16 Thread, 3" Length	6
26	10_f5ox-s	STRAIGHT THREAD CONNECTOR	1
27	12_f5ox-s	STRAIGHT THREAD CONNECTOR	1
28	P-10-GCU	#10 SAE UNION	1
29	P-12-GCU	#12 SAE UNION	1
30	W8F8-B	QUICK DISCONNECT, NIPPLE MALE, 1"	2
31	W6F4-B	QUICK DISCONNECT, NIPPLE MALE, 3/4"	2
32	6WF4-B	QUICK DISCONNECT, WING FEMALE, 3/4"	2
33	16_1_F5F	STRAIGHT MALE PIPE ADATER, 1"	4
34	3-916		4
35	8_1-2_F5F	STRAIGHT MALE PIPE ADAPTER, 1/2"	4
36	3-908		4
37	8WF8-B	QUICK DISCONNECT, WING FEMALE, 1"	2
38	H10-023-046	LABEL, MANIFOLD BACK	1
39	H10-023-045	MANIFOLD MTG PLATE	1
40	92210A584	18-8 Stainless Steel Flat Head Sckt Cap Screw 5/16"-18 Thread, 7/8" Length	16
41	RDH103S50	-10 D.A RELIEF VALVE	1





REV.	DESCRIPTION	DATE	APR.
B	DEFEATED CHECK VALVE, PORTING STILL EXIST	4/19/2012	
A	REPLACED DL101K WITH RDH103S50	4/19/2012	

REVISION HISTORY

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES.
E.H. WACHS WORKMANSHIP STANDARDS (WI 17-01) SHALL APPLY TO ALL ITEMS NOT SPECIFIED ON DRAWING.
DO NOT SCALE DRAWING.

TOLERANCES:
FRACTIONS ±1/32
ONE PLACE DECIMAL ±.015
TWO PLACE DECIMAL ±.010
THREE PLACE DECIMAL ±.005
ANGULAR ±15 MIN.

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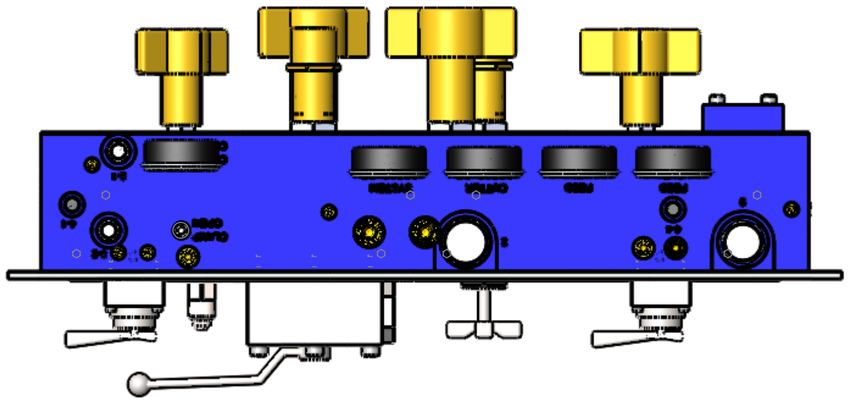
11050 West Little York, Building N
Houston, TX 77041
www.wachssubsea.com

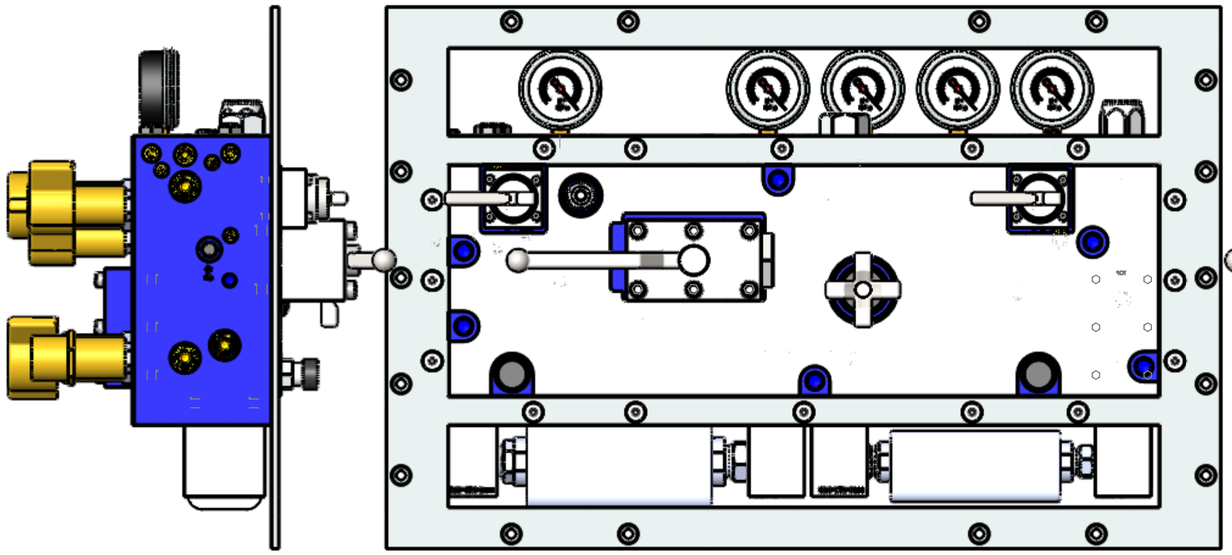
TITLE: UNIVERSAL CONTROL PANEL MANIFOLD

DRAWN BY	APPROVED BY	SCALE
SN	--	1:4
DATE: 04/12/2012	DATE: --	SHEET: 1 OF 2

SIZE: C | DWG. NO.: **Universal Control Panel** | REV.: B

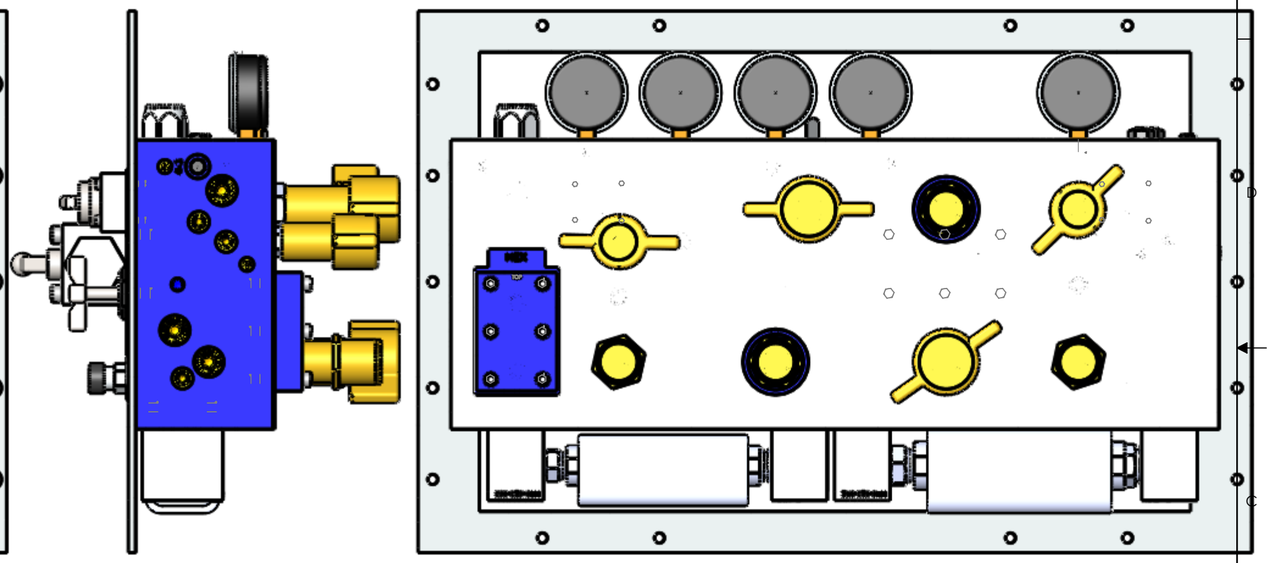


TOP VIEW



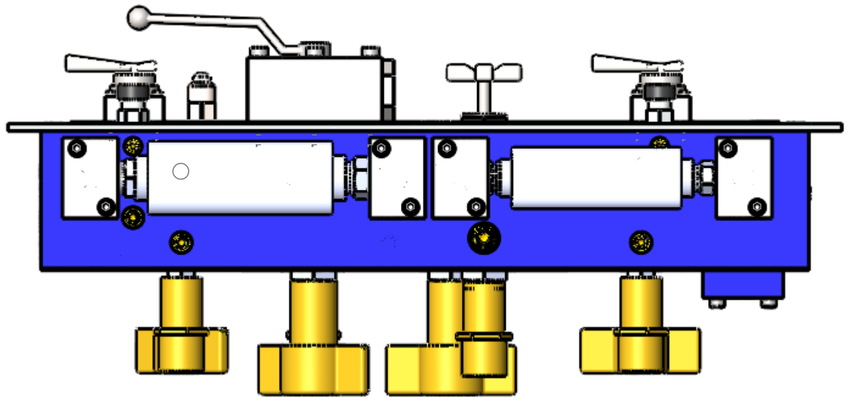
LEFT VIEW

FRONT VIEW



RIGHT VIEW

BACK VIEW



BOTTOM VIEW

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TOLERANCES:
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TWO PLACE DECIMAL ±.010
THREE PLACE DECIMAL ±.005
ANGULAR ±15 MIN.

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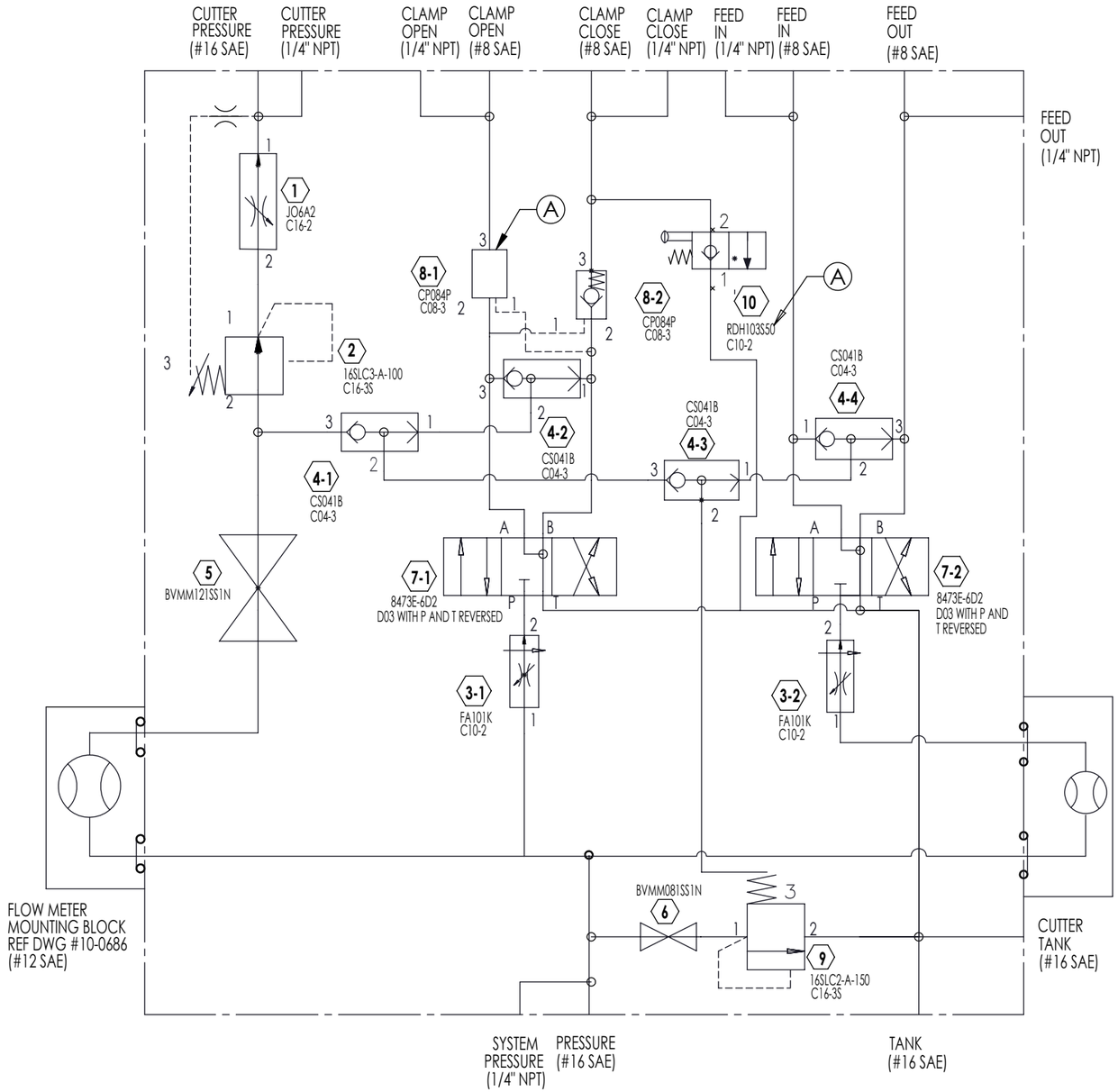
Houston, TX 77041
www.wachssubsea.com

TITLE: DESCRIPTION		
DRAWN BY: SN	APPROVED BY: --	SCALE: 1:4
DATE: 04/12/2012	DATE: --	SHEET: 2 OF 2
SIZE: C	DWG. NO.: **Universal Control Panel**	REV.: B

NOTES:
1. MATERIAL: H10-023-001
2. FINISH: N/A
3. REF.: 10-0687 SCHEMATIC
4. 8-1 : CHECK VALVE DEFEATED, PORTING STILL EXIST



FLOW SCHEMATIC

VALVES:
1. PARKER NV162 OR J06A2
2. PARKER 16SLC3-A-100
3. PARKER FA101K
4. PARKER CS041B
5. PARKER BVMM121SS1N
6. PARKER BVMM081SS1N
7. PARKER 8473E-6D2 (P & T ARE REVERSED)
8. PARKER CP084P
9. PARKER 16SLC2-A-150
10. PARKER RDH103S50

PORTS:
(SEE FLOW SCHEMATIC)

REV.	DESCRIPTION	DATE	APR.
A	CHANGE DL101K TO RDH103S50, REMOVE CHECK VALVE FROM 8-1	4/19/2012	

REVISION HISTORY

UNLESS OTHERWISE SPECIFIED:
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TOLERANCES:
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TWO PLACE DECIMAL ±.010
THREE PLACE DECIMAL ±.005
ANGULAR ±15 MIN.

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TITLE: SCHEMATIC, WSS UNIV. HYD. MANIFOLD

DRAWN BY	APPROVED BY	SCALE
TLJ		1:1
DATE	DATE	SHEET
8-23-2010		1 OF 1

SIZE	DWG. NO.	REV.
B	**H10-023-001-SCH**	A